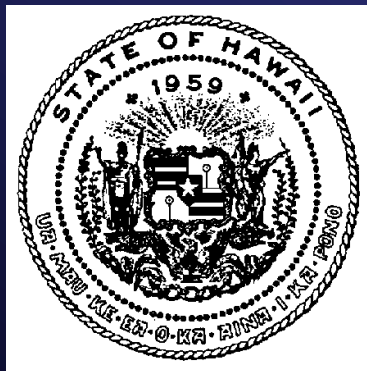


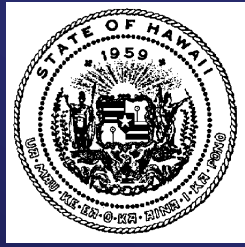
The Department of Land & Natural Resources

The Division of Aquatic Resources



Updating Hawai'i's Marine Fishing Regulations

The Department of Land and Natural Resources (DLNR)



- Division of Aquatic Resources (DAR)
- Division of Forestry and Wildlife (DOFAW)
- Land Division
- Division of Conservation and Resource Enforcement (DOCARE)
- Division of State Parks
- Division of Historic Preservation (SHPD)
- Division of Engineering
- Division of Boating and Ocean Recreation (DOBOR)



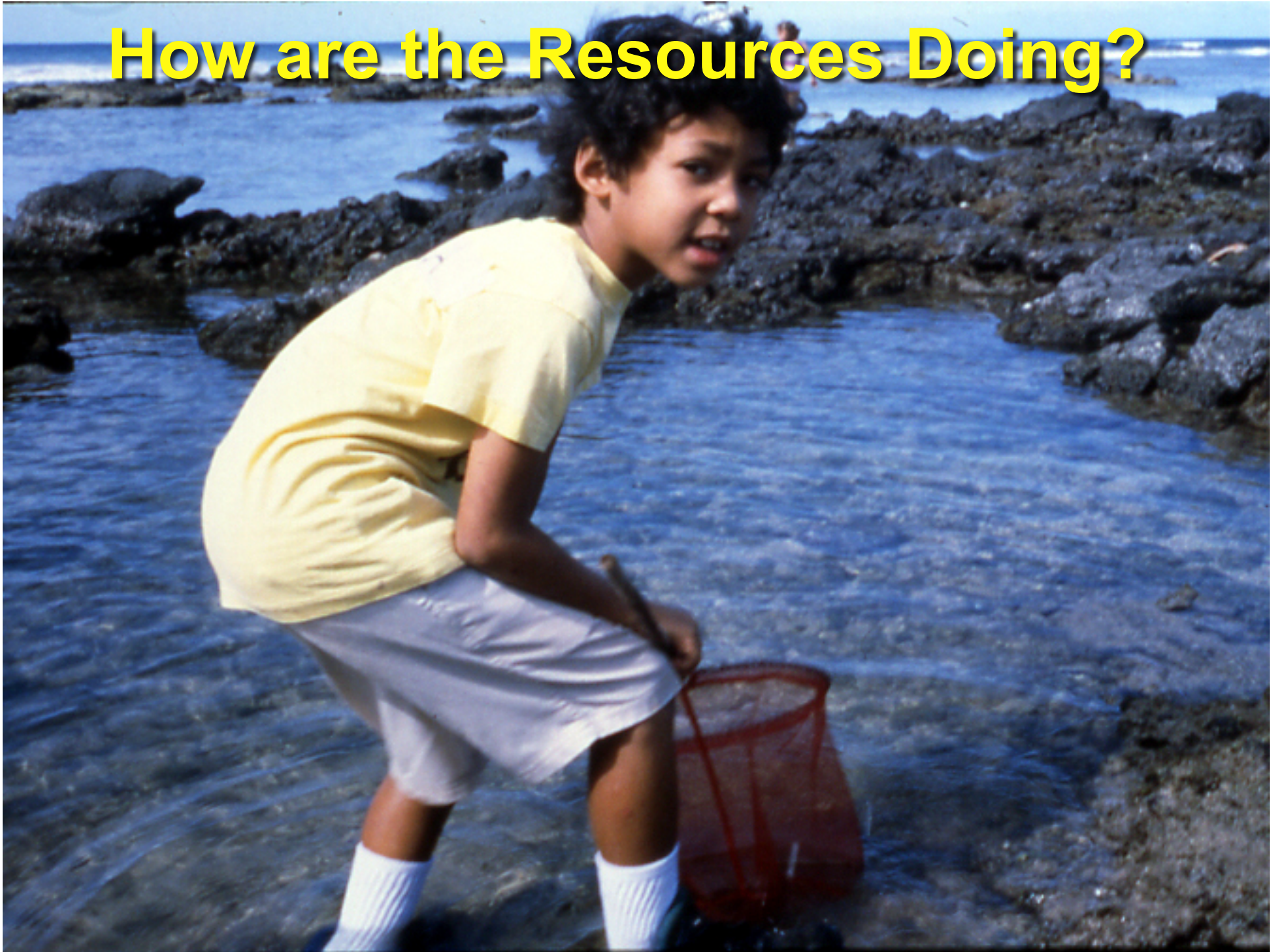
The mission of the Division of Aquatic Resources is to manage, conserve and restore the state's unique aquatic resources and ecosystems for present and future generations.

Fishing is an Important Use of Hawai'i's Aquatic Resource



The DAR manages fishing impacts to maintain sustainable fisheries and healthy aquatic resources for all ocean users.

How are the Resources Doing?



DLNR Resource Managers have had Concerns for Many Years

“Underwater surveys of fishing areas and examination of commercial fish catch reports have disclosed that the more desirable game and food fishes in the shallow inshore areas are on a declining trend and have deteriorated to such an extent that the need for sound conservation measures is urgent.”

Division of Fish & Game

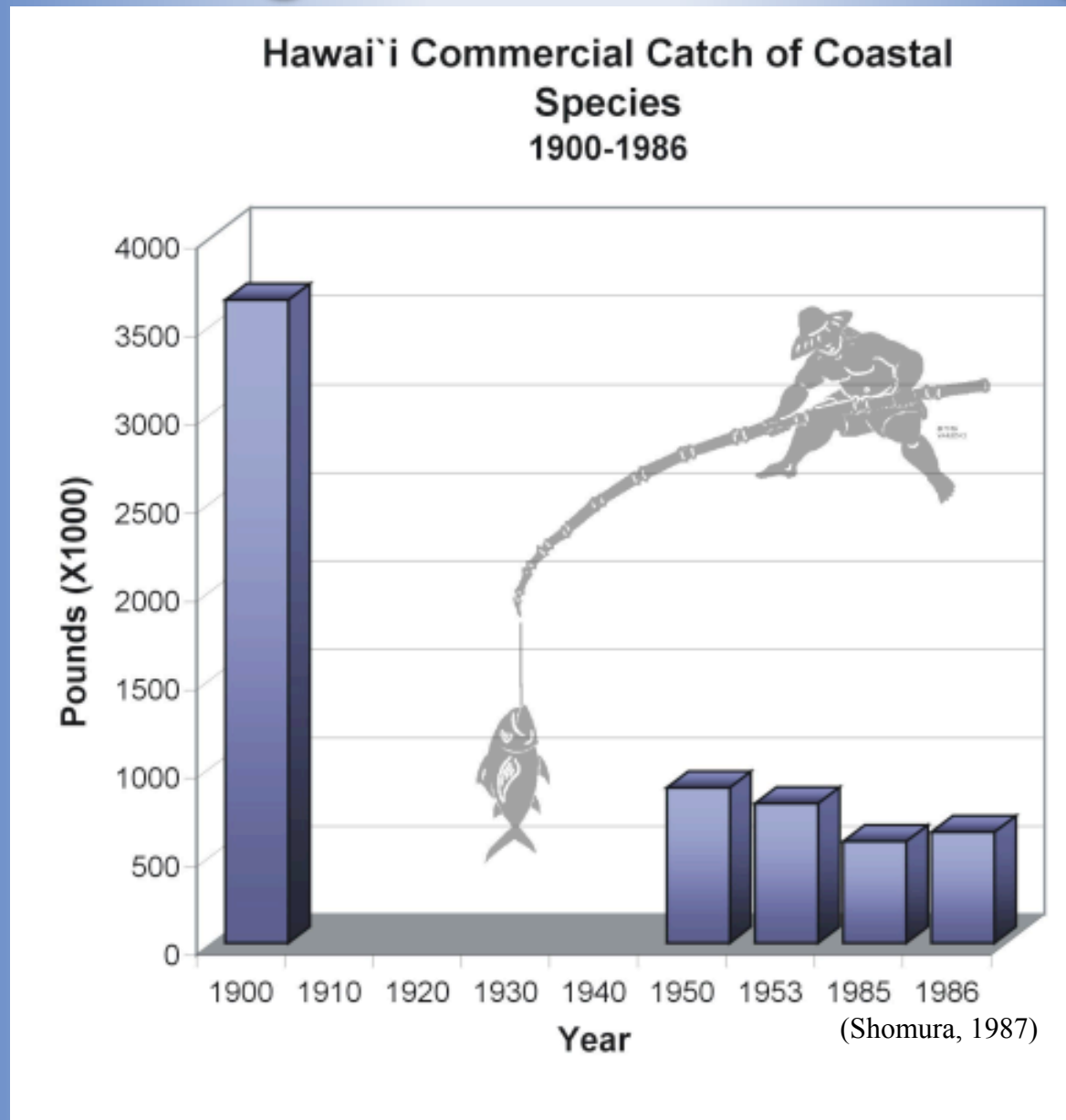
Annual Report of the Board of Agriculture and Forestry, Territory of Hawaii

FY July 1, **1955** – June 30, **1956**

Some Concerns Come from Commercial Catch Reports

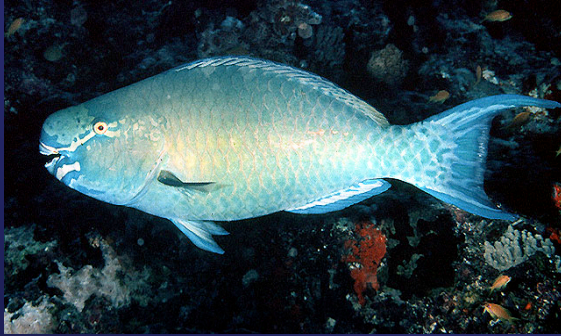


Declining Commercial Landings



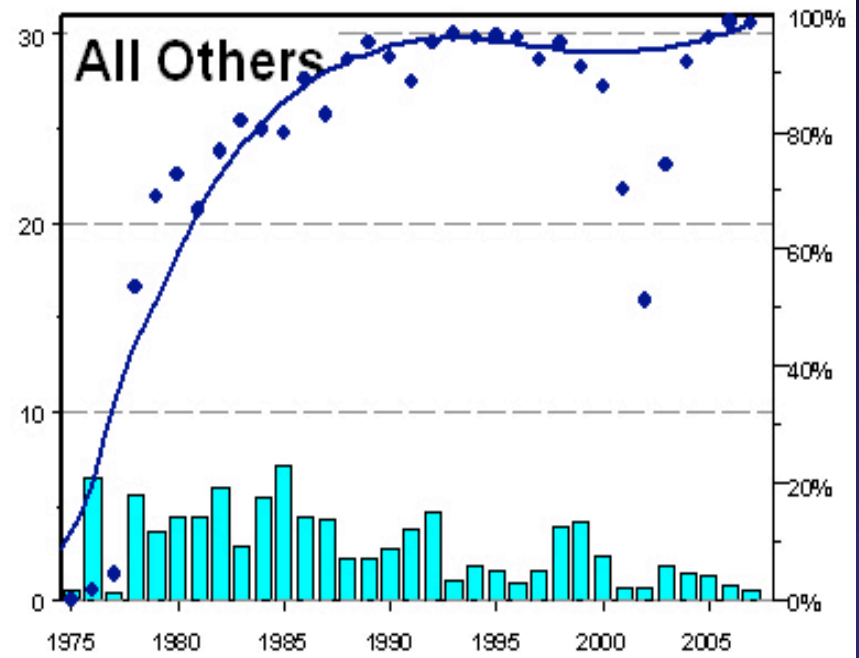
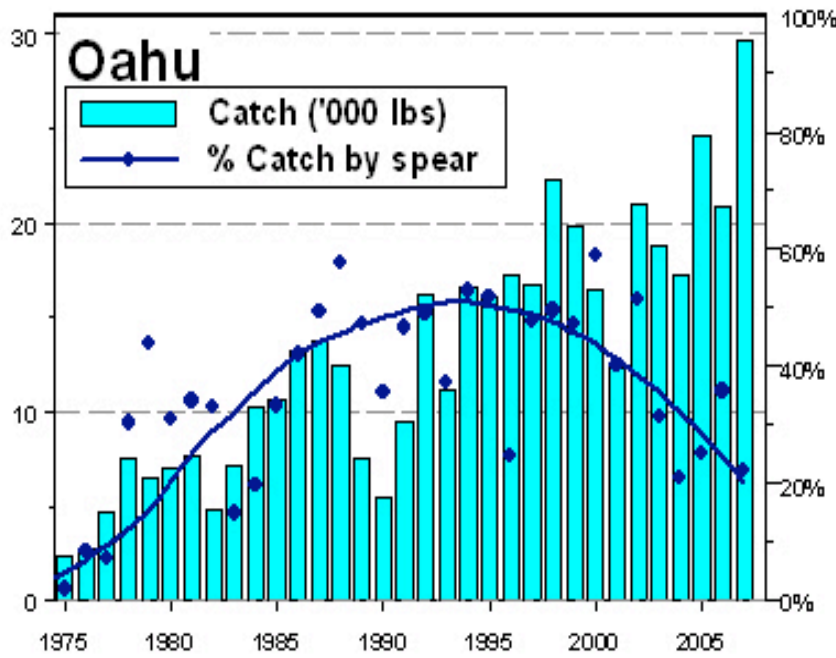
Declining Commercial Catch per Unit Effort CPUE

Changes in Gear & Methods



Commercial catch data shows that total parrotfish harvest has gone up, but gear and fishing methods have changed and are different at different areas of the state.

Weight (lbs X 1,000)

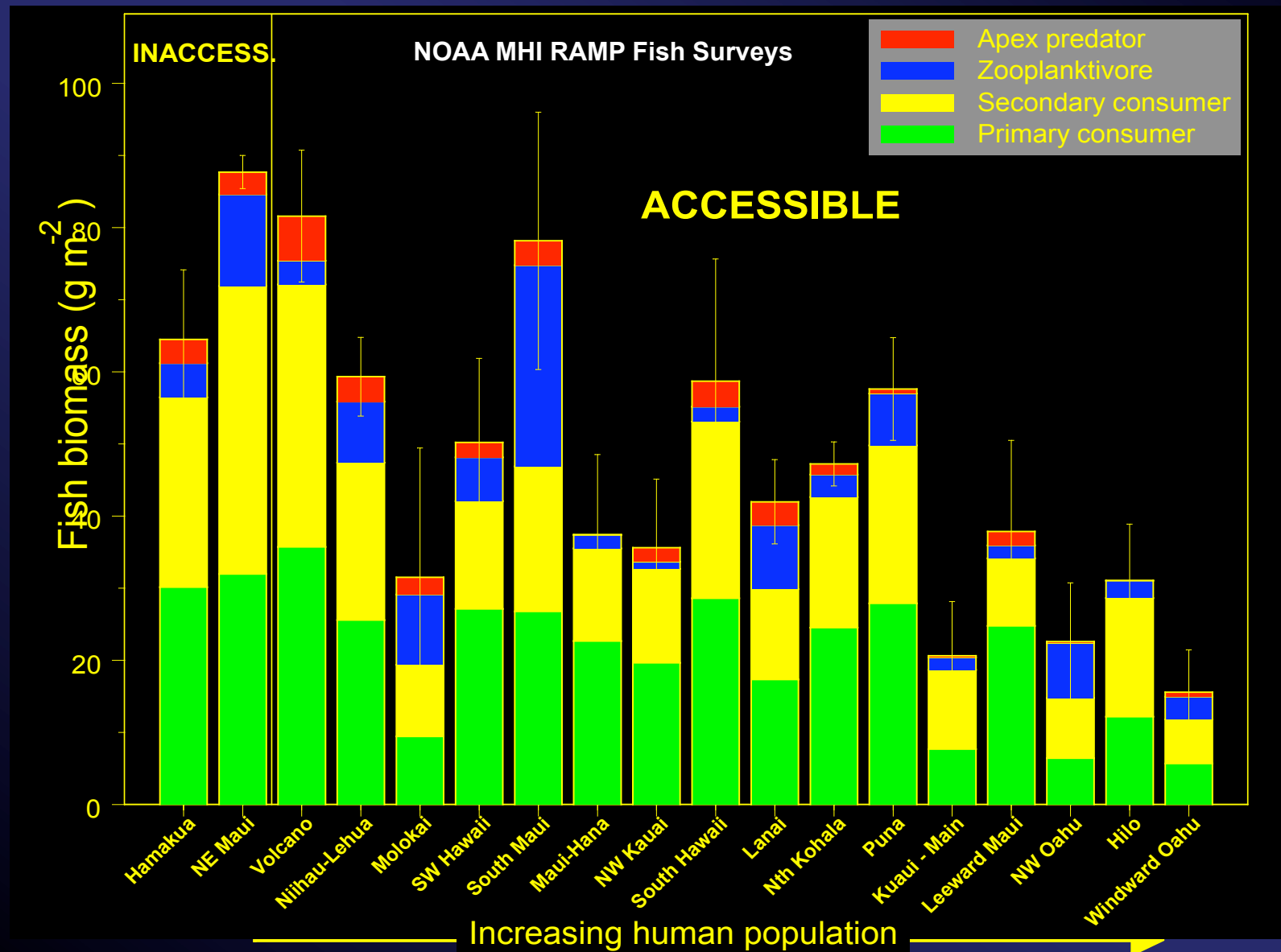


Time (Years)

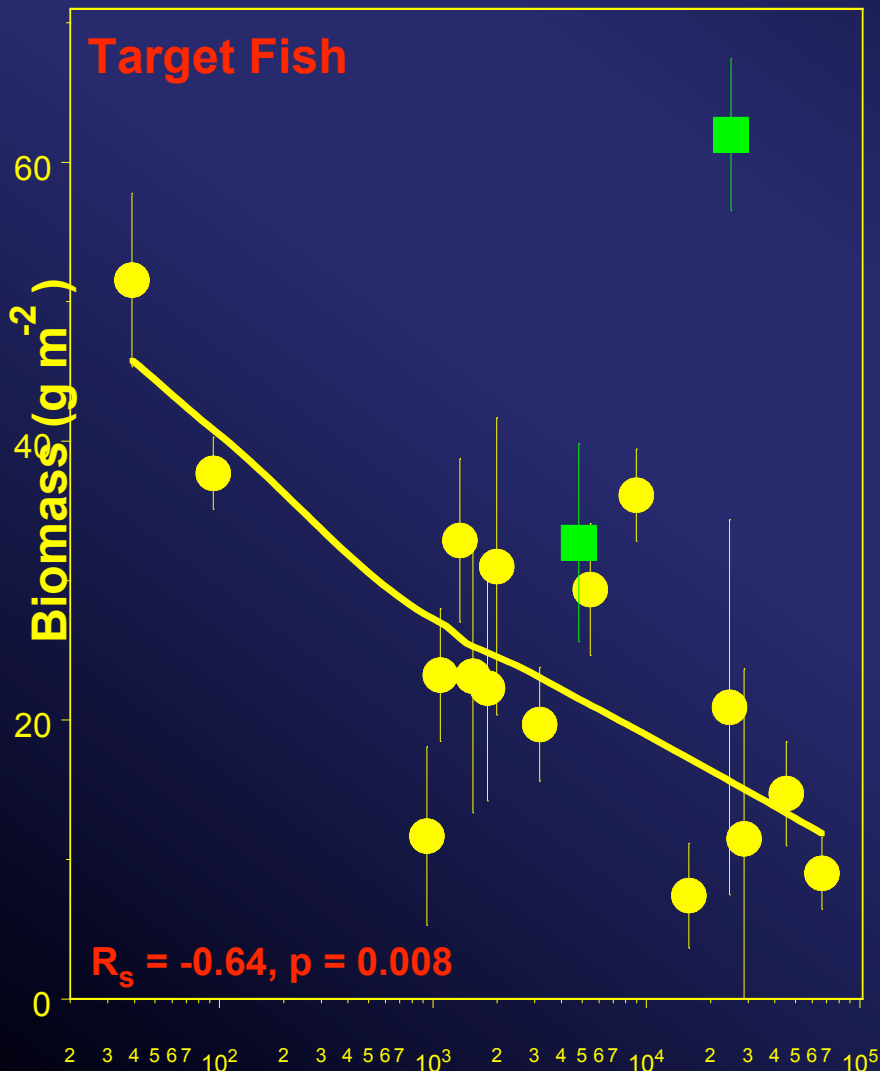
Some Concerns Comes from Underwater Visual Census Data “Fish Counts”



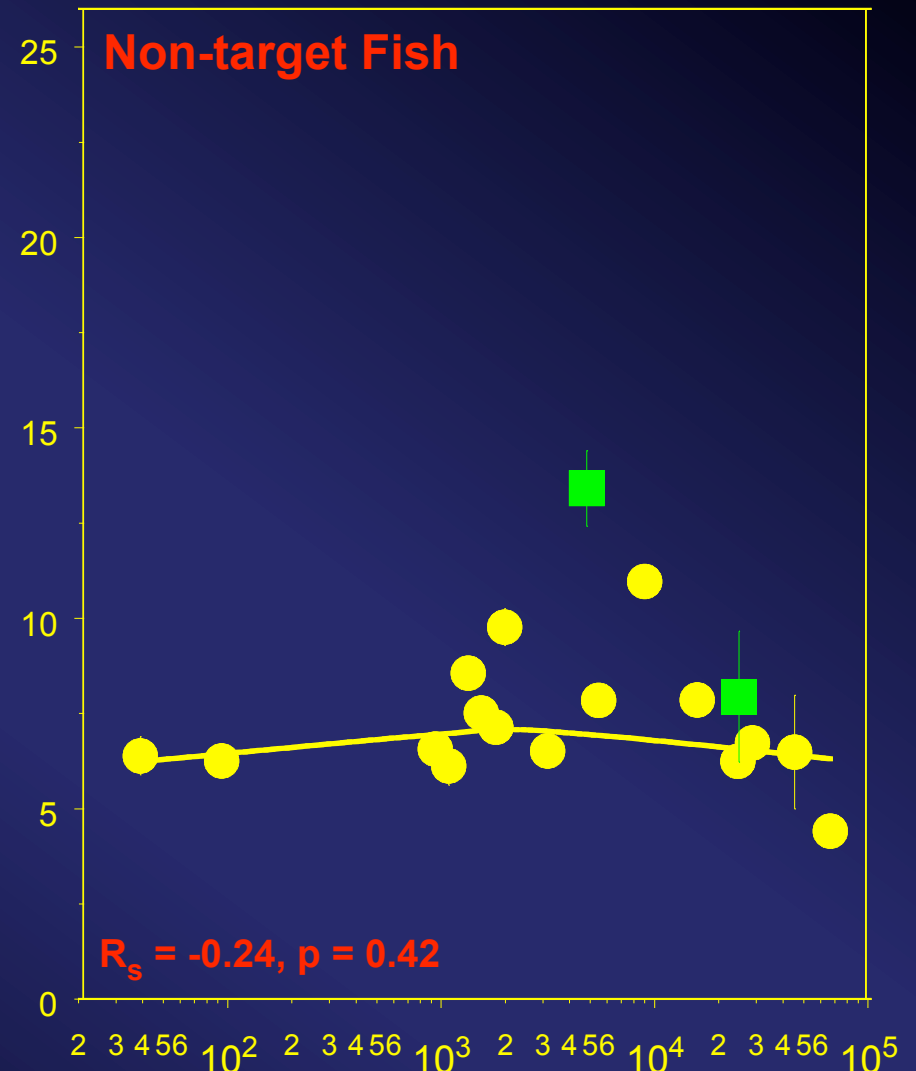
Fish Biomass is Reduced with Increasing Human Population & Accessibility



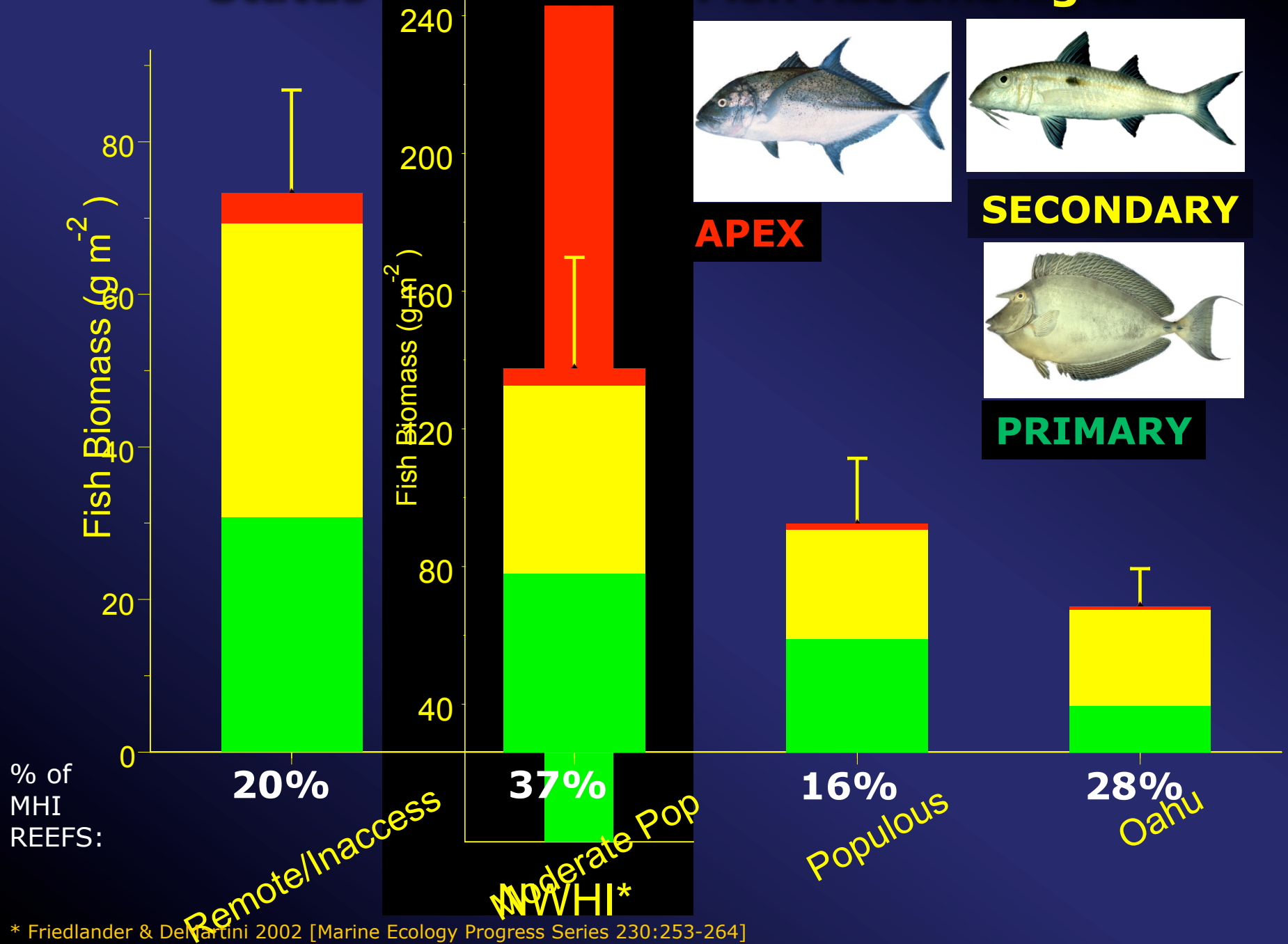
Reduced Target Fish Biomass is Likely the Result of Fishing Impacts



Mean Human population within 15 km of survey sites



Status of MHI Reef Fish Assemblages



Many Fishers Have Similar Concerns

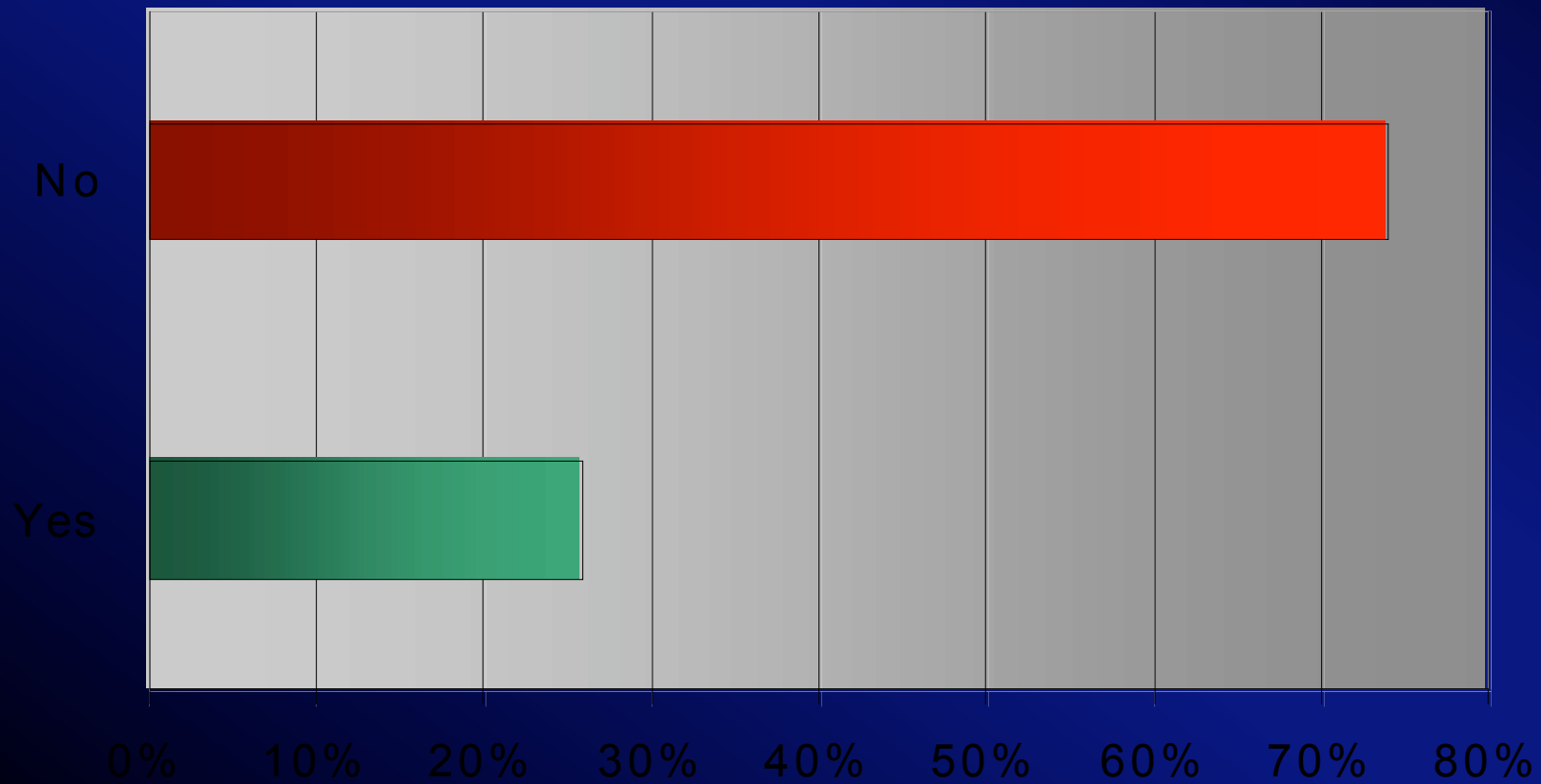


1987 Hawaii Commercial Fishing Survey

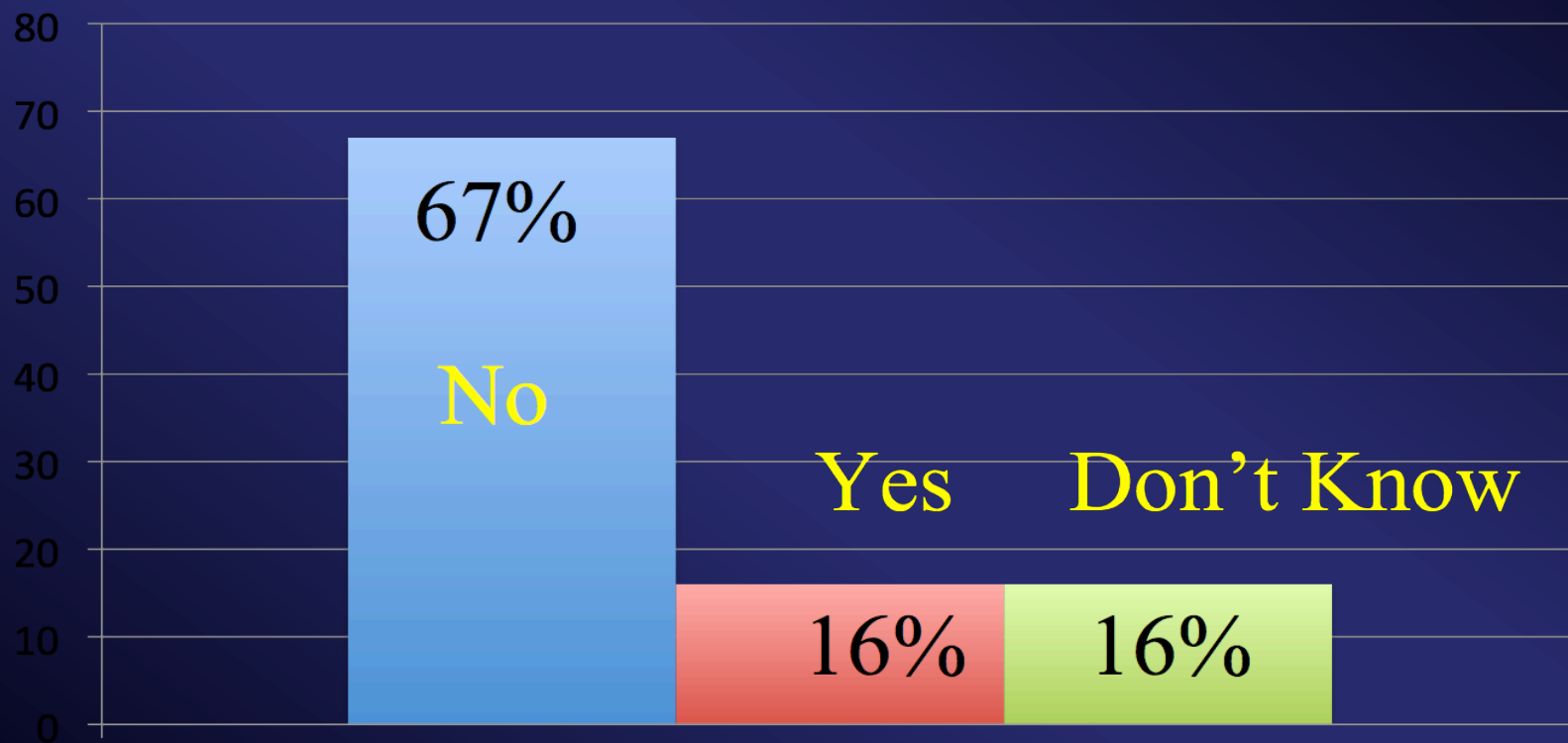
DAR/DLNR

2,529 mailings 780 responses

Is commercial fishing generally good now?

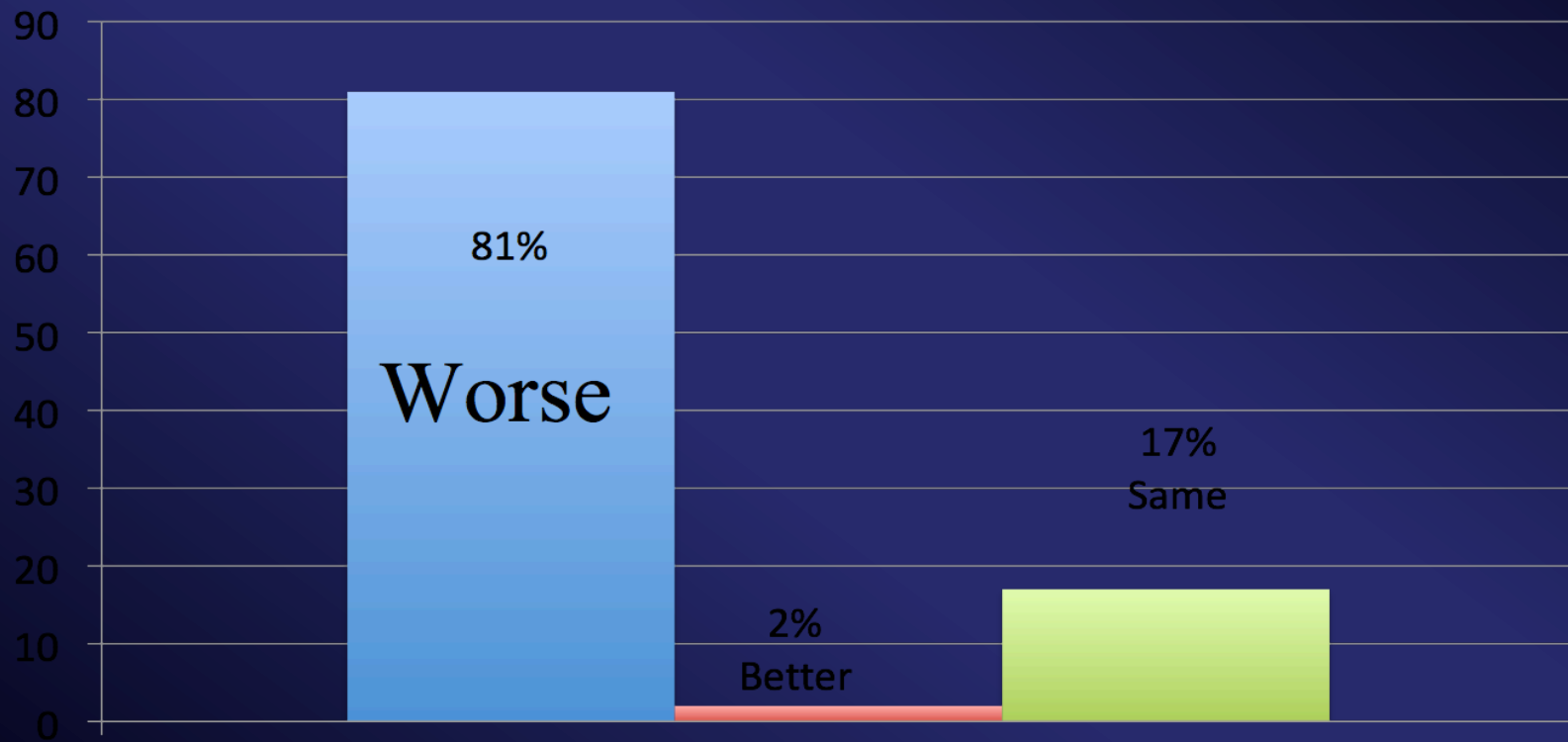


Are there too many regulations?



Source: 2002 DAR Survey

Has Fishing Gotten Worse, Better, or Stayed the Same?



Source: 2002 DAR Survey

DAR/DLNR Fishing Survey 1998

Conducted of 863 fishers on Oahu (87%), Maui and Hawai'i

	YES	NO	nc
Would you like to see more enforcement?	73%	16%	11%
Would you like to see more FMAs?	67%	23%	10%
Would you like to see more MLCs?	44%	43%	13%
Do you favor a marine recreational fishing license?	50%	42%	8%
Should gill nets be restricted or banned?	80%	20%	0%

20% of all fishers felt inshore fisheries were *terrible*

37% felt the fisheries were *poor*

34% felt the fisheries were *fair*

8% felt the fisheries were *good*

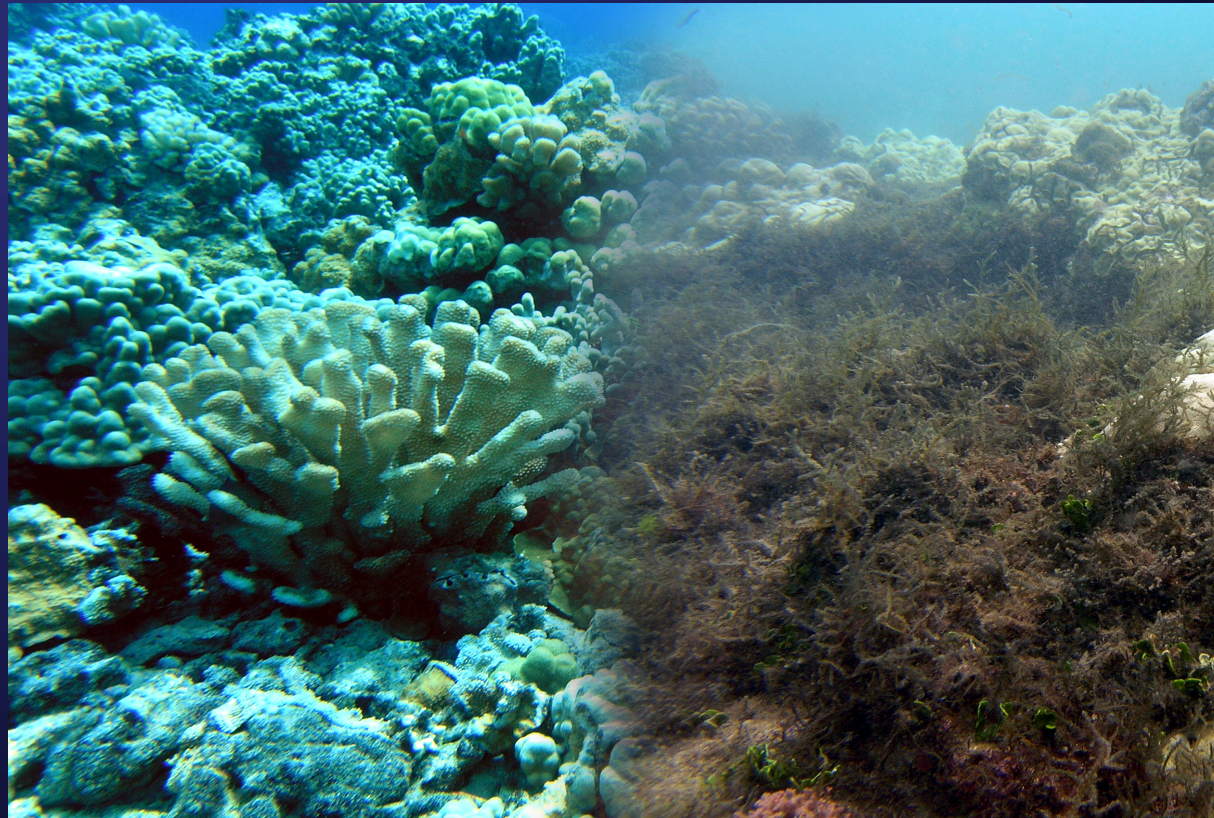
1% felt the fisheries were *excellent*

Summary

The Need For Better Near-shore Fishery Management

1. Commercial data shows declining catches, increasingly efficient fishing methods, and different techniques being used on different islands.
2. Targeted fish biomass levels have declined with increasing human population and shoreline accessibility while fish that are not harvested remain unchanged.
3. Even the best fish stocks in Hawai'i are a fraction of what the levels are at pristine areas like the NWHI.
4. The majority of commercial and recreational fishers don't need science to tell them things are bad with over half of all fishers describe near-shore resources as in **poor** or **terrible** shape.

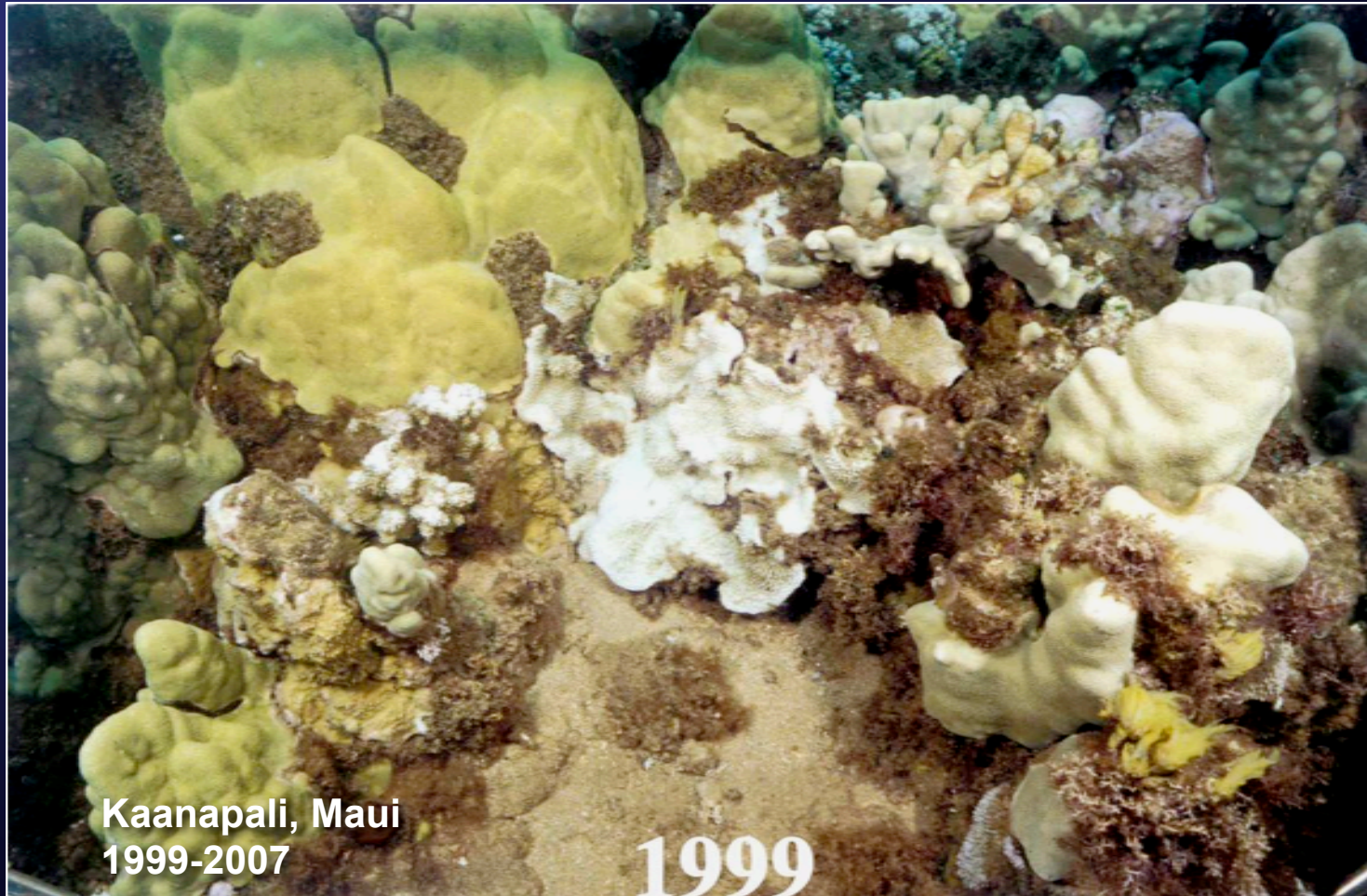
Other Reasons to Better Manage Near-shore Resources



Ecosystem Services

The role certain species play in helping maintain healthy marine ecosystems.

Reef Declines Can Happen Quickly and Will Impact all of Our Near-shore Resources



If we cannot maintain healthy marine ecosystems, fish stocks will continue to decline.

Examples

Some Fish Provide Services to the Ecosystem

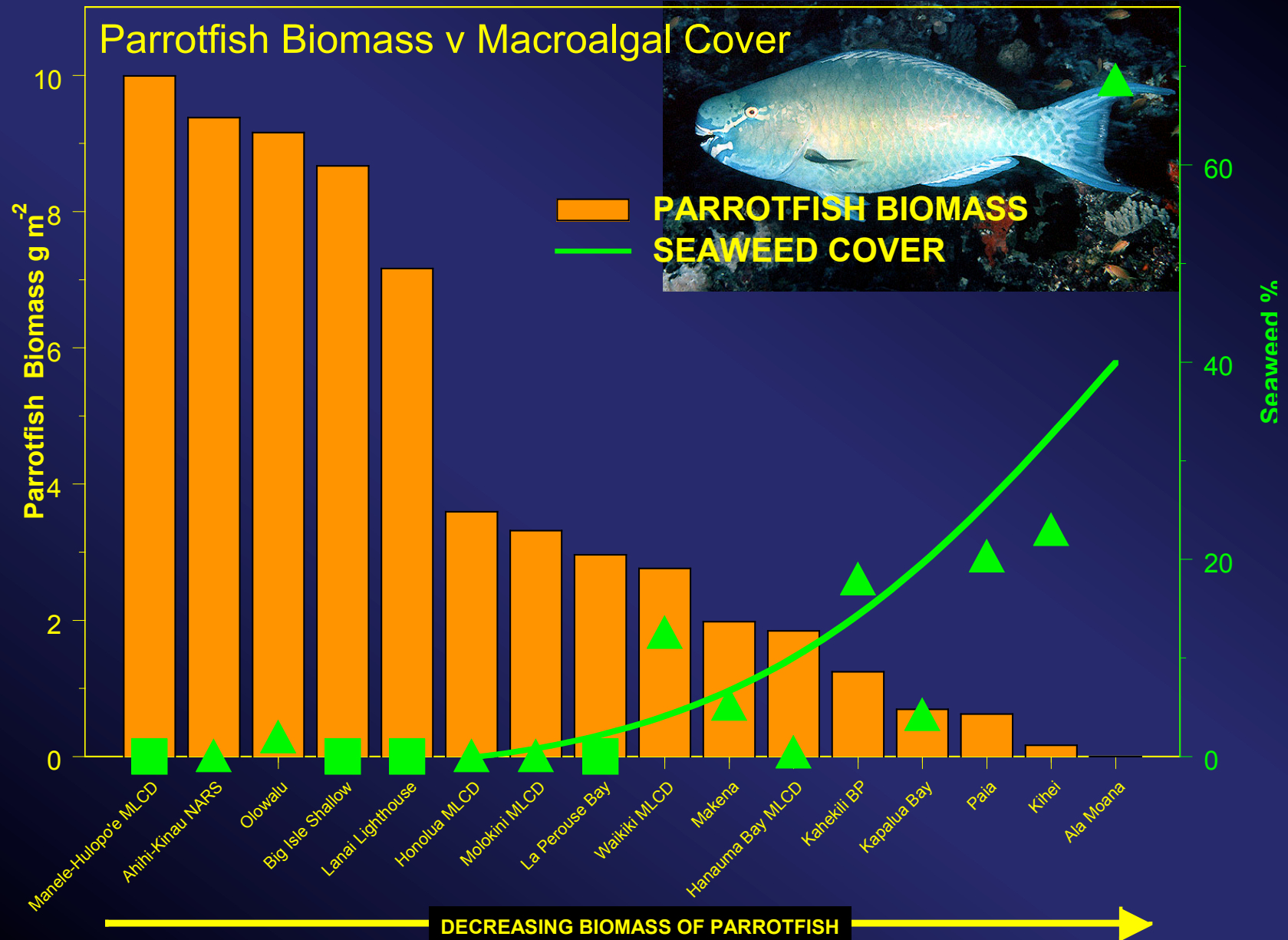


Herbivorous Fish Play a critical role in helping control algae growth and maintaining healthy coral reefs.



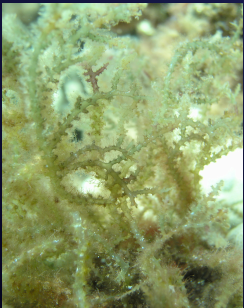
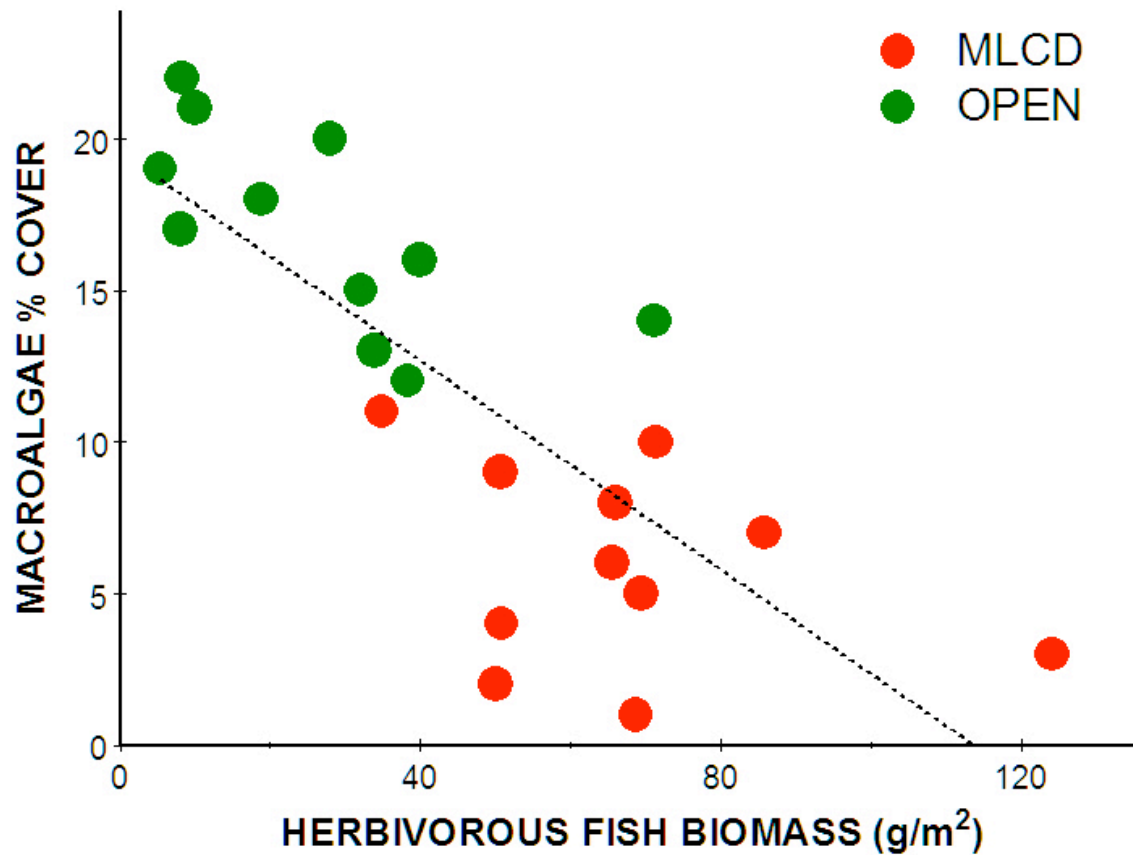
**Baitfish are an important food sources
For many near-shore predators!**

Concerns with Reduced Ecosystem Services



Source: MHI shallow water surveys Hawaii DAR 2006-7

Concerns with Reduced Ecosystem Services



Declining Resources Have Many Causes



There is Plenty of Blame to Go Around

Fishing Impacts are One Concern



The DAR does not have jurisdiction over the various land issues, but is directly responsible for managing fishing related impacts.

So Where to We Go From Here?



Legal Authority

What Tools Does DAR Have Available?

HRS 187A-5 Gives the DLNR the authority to adopt, amend, and repeal rules in the following categories:

- 1. Size Limits;**
- 2. Bag Limits;**
- 3. Open and Closed Seasons;**
- 4. Gear Restrictions;**
- 5. Area Restrictions;**
- 6. Restrictions for Bait-fishing;**



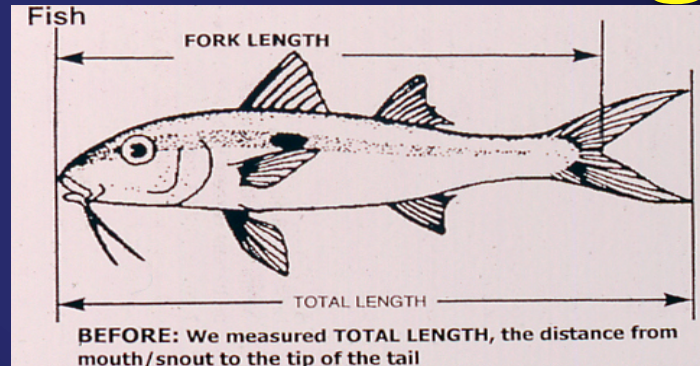
**Rules can vary from one county to another.
All rules shall have the force of Law.**

What Management Tools Should DAR Use?

- DAR would like to use minimum size rules as a standard template for most targeted fish species.**
- In some cases, biological and social considerations may make minimum size rules inappropriate.**
- Effective management of many priority species may require a combination of minimum size rules and other management tools.**
- Successful resource management requires public support and compliance.**

What type of rules will you support?

DAR would like to prioritize Minimum Sizes Regulations



Minimum size regulations will be based on
L-50

The Length at Which Half of the
Individuals in a Species Become Reproductively Mature

Science Based & Widely Understood

Concerns with Minimum Sizes

1. Minimum size regulations protect small fish, but not the large reproductive stocks. (slot limits?)
2. Many important recreational fisheries target immature fish species (Papio, Halalu, Oama).
3. Minimum size regulations will not prevent problems that occur when excessive harvesting occurs. (Bag limits?)
4. Some fish are not effectively protected with minimum size regulations because of unique biological adaptations (sequential hermaphrodites - moi, uhu).



Priority Resource Issues!



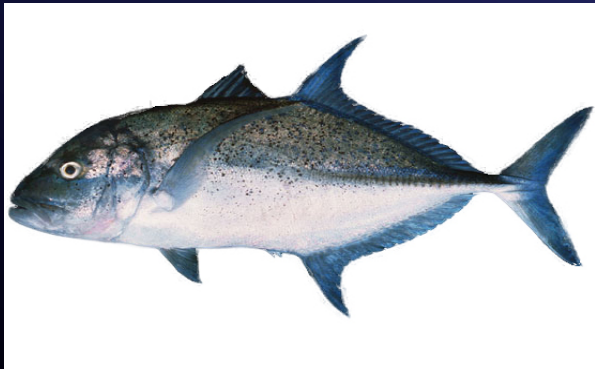
Parrotfish / Uhu

1. Important for coral reef ecosystem health.
2. Increasing commercial harvest by more efficient gear and methods.
3. Decreased stocks in shallow near-shore areas.



Large Goatfish Species (Kumu, Moana Kea, Munu, etc)

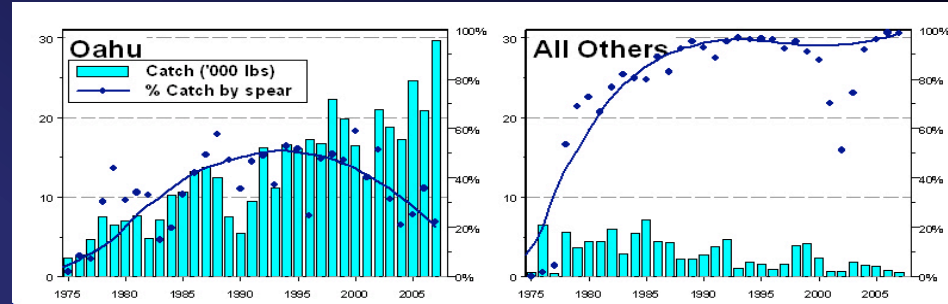
1. Clearly declining commercial catches.
2. High market value driving increased commercial demand.
3. Decreased stocks in shallow nearshore areas.



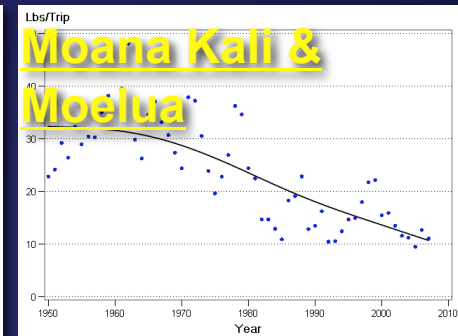
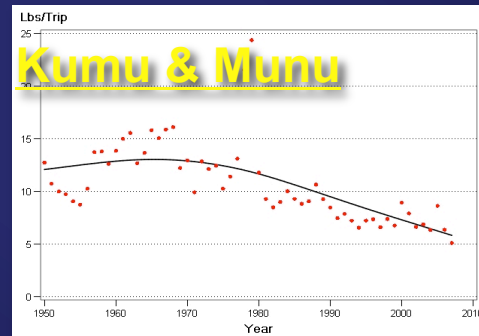
Ulua / Papio

1. Very important near-shore recreational sports fish.
2. Recent increases in commercial harvest likely due to shifting effort from bottomfish restrictions.
3. Traditional recreational fishery that targets juvenile fish, with regulation that may need to be revised.

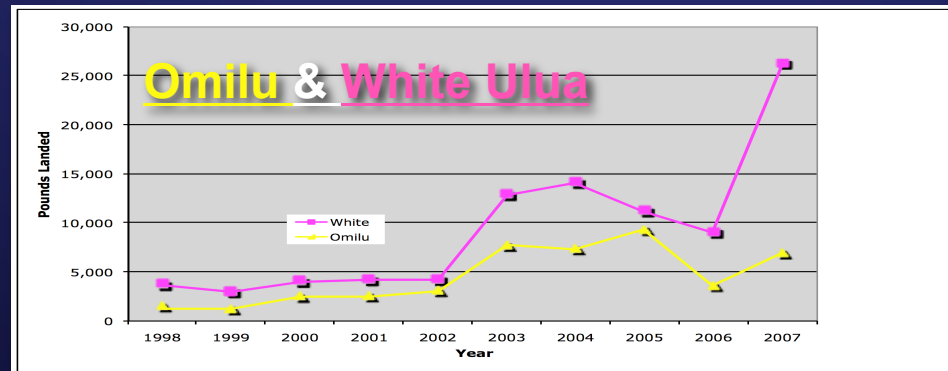
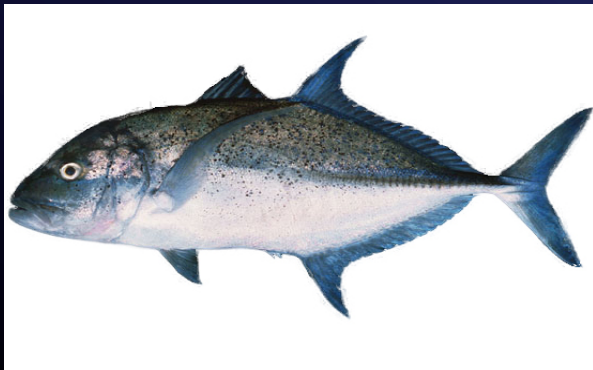
Priority Resource Issues!



Increasing Catch along with changing gear types and harvest efficiency



Decreasing Catch per unit effort along with increasing commercial value



Increasing commercial harvest of White Ulua may be due to shifting effort from BF Fishery

How Can You Help?

We need your input to update Hawai'i's regulated species rules. We will be gathering your input tonight on the following topics.



1. Plans to set minimum size regulations on most targeted resource fish species as a statewide management template.
2. The best way to manage priority marine species and your thoughts on other species that should be high management priorities.
3. Other comments or suggestions related to better management of our near-shore marine resources.

DAR would be willing to hold small informational meetings with interested stake holders and/or communities.

If you are interested please provide your contact information.

What is the Process?

- Analyze public comments from meetings, questionnaires, etc.
- Create draft rules based on these and other comments.
- Conduct a second round of Statewide public meetings of proposed rules.
- Analyze public comments again.
- Initiate formal administrative rules procedure

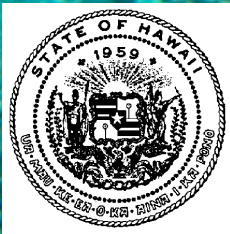


Working together

We can create fishing rules that are:

1. Based on good science
2. Proactive against over-fishing
3. User friendly for the fishing public.

Thank You!



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